

ABSTRACT OF THE DISCLOSURE

A hydraulic manifold assembly for variable actuation of engine valves. First and second plates have portions of flow passages integrally molded therein. The plates are formed preferably by injection molding of a suitable polymer, for example, glass-filled nylon, and are joined together as by cementing or preferably by fusion welding (vibration welding) along mating surfaces to form the full pattern of flow passages. This method of forming the manifold obviates the need for separate fasteners to connect the plates and for internal seals to form the flow passages. The assembly further comprises a retainer for retaining a plurality of individual solenoid-actuated valves in sockets formed in the plates. Preferably, the retainer is formed to function simultaneously as a positive crankcase ventilation (PCV) baffle that attaches to the plates via integrally molded releasable snap tabs. The present manifold results in a weight savings and a substantial savings in manufacturing cost over a prior art manifold formed of cast aluminum.

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